A

DISCOURSE

ON

MEDICAL EDUCATION,

DELIVERED AT THE

MEDICAL COMMENCEMENT

OF

THE COLLEGE OF PHYSICIANS AND SURGEONS

OF THE

UNIVERSITY OF THE STATE OF NEW-YORK,

ON THE

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Gentlemen,

A sound mind, in a sound body, constitutes the principal happiness and perfection of man; the means, therefore, by which such great and essential benefits are to be secured, have ever been the object of his solicitude, and most anxious inquiry. Bountiful nature has placed both, to a certain degree, within our reach; but she has not offered them gratuitously to our acceptance; and if we would enjoy, we must consent to purchase them, at the price which she has invariably set upon these, and all other blessings, she pours so profusely around us. That price, (young gentlemen, I address myself particularly to you,) that price is *persevering industry*, *and*

well-directed labour ; without which, nothing great or excellent was ever attained; but when properly aided by these, it is not easy to set limits to the powers of man, or to say, what he may not atchieve. Nor is this universal law of our nature more applicable to the health of the body than it is to the improvement of the mind ; every exercise of which "upon the theorems of science, (says the admirable author of Hermes,) tends to call forth and strengthen our native and original vigour. Be the subject immediately productive or not, the nerves of reason are braced by mere employ, and we become better actors in the drama of life, whether our parts be of the sedate or the active kind."

Man, in every state of society, is obliged to acknowledge this truth. It is only in the ends he has in view, in the variety of things which he deems good and useful, that the untutored savage differs from the civilized man—that the ignorant and the vicious differ from the wise and the good. The means by which the objects of their pursuit are acquired, are the same in both. "It is as

easy to become a scholar, as it is to become a gamester, or any other character equally low and illiberal: the same application, the same quantity of habit, will fit us for the one, as completely as for the other."* Indeed, we are, in a peculiar degree, the creatures of habit, and it is as easy to establish good and useful, as it is to establish evil and pernicious, habits. Hence the great value and importance of education; that such talents and faculties as God and nature have given us, may not only be called forth, but restricted within proper limits, and directed to their proper objects: to private happiness, and to the public good. Otherwise, like seed committed to a fertile soil, but not enlivened by a genial sun, they may lie buried and inactive forever; or if not restrained by due culture, they will shoot out into wild and luxuriant branches, which will never produce good and wholesome fruit. For man is an active and a restless being; nothing becomes so insupportable to him as continued inaction; if he is not doing good, he will probably be engaged in evil; he will

*Harris.

do mischief rather than do nothing. Even the savage, to whom rest is the most dignified, as well as the most grateful, enjoyment, continually has recourse to the laborious toils of the chase, or to the fatiguing dangers of war, to relieve himself from the irksome feelings of protracted quiet; thus, too, in civilized life, all the envied qualities of great genius and brilliant talents are ever at work on good or evil. When unimproved by study, and unrestrained by discipline, they too frequently, like a wandering and a blazing meteor, burn and destroy every thing they approach; but when restricted in their course by proper principles, and directed by wisdom and virtue, they warm, and cherish, and illuminate, like the blessed sun. It is, therefore, in the constitution of our frame, and in the nature and structure of our minds, that we discover the reason and truth of the maxim, that the happiness of private life, the peace of society, and the stability of government, especially of all free governments, depends upon the instruction, information, and correct habits, of the people. To give these their proper direction,

and to establish them firmly, we must begin with early youth; we must lay the foundation of all professional excellence, correct morals, and pure religion, as well as of good government, in our common schools. From whence, otherwise, shall offices be filled with ability; where shall we find just magistrates, and able teachers of religion and virtue; where the protectors of our rights and our property; where the preservers of our health and our lives; where, in short, good citizens, if we neglect to instruct our youth, and leave them to grope their devious way without a guide through the labyrinth of this mazy world?

But general observations on the necessity and advantage of education, cannot be very necessary before this audience; let us, therefore, turn our attention to that branch of learning, to which this College is particularly devoted, and after considering the necessary preparation, endeavour to explain the nature of such institutions and discipline as experience has proved to be useful and requisite in the education of an accomplished physician and surgeon.

It has of late been made a question, sanctioned by some great names, particularly in this country, how far the study of the Greek and Latin languages is necessary, or even useful, in either of the learned professions, excepting that of Divinity. But yielding, for the present, the argument for their absolute necessity, I believe it may be said with great truth, that there is no study or discipline, in which a boy, who is intended for any liberal profession, not excepting merchandise, which is the most general—or who may take a part in the government of his country, to which, with us, all may aspire—can, from the age of eight years to that of sixteen or eighteen, be employed, so generally and truly useful, as classical learning. The study of grammar, and the application of its rules, as practised in a good school, form, perhaps, the very best exercise that can be invented, to rouse the ambition, to quicken the apprehension, to ripen the judgment, and to establish a habit of close and diligent application, the first and the greatest lesson of life. And the youth who can read Homer and Virgil, Plato and Cicero, without imbibing some

of their noble and generous sentiments, without having his judgment strengthened, his taste refined, and his heart mended, must be strangely deficient in all good feeling, or in any improvable faculty of mind. The elements, therefore, of classical learning may justly be considered, and have been proved by long experience, to be the best preparation for any employment above those of the mechanic arts; and before it is time to begin the study of either of the learned professions, or to enter a counting house, a young man may easily acquire these, together with a correct knowledge of his own language, and so much mathematical learning as is necessary and useful in the ordinary business of life. As to the modern languages, their great utility in the commerce of the world cannot be denied; but in forming the character, an object of far greater consequence, they certainly fall very far below the ancient languages; nor can any person, who will consider how much the knowledge of one language facilitates the acquisition of another, and how much more the knowledge of two facilitates that of

a third, think, even in this respect, the time lost, which is spent in acquiring the Latin, the root and origin of the Italian, Spanish, and French, languages.

But farther; languages are the repositories of science; losing a language, therefore, is like the destruction of an immense library, which cannot be replaced. If the originals are neglected purposely, the copies may be accidentally lost, by the ravages of a barbarous foe, or the lapse of time, and thus by neglecting a language, one means of perpetuating knowledge, so far as that language is concerned, is certainly lost. Besides, though science may be translated, taste and talent cannot. The spirit of original composition is too volatile to be transfused; to catch it, we must ascend to the fountain head.

Although, therefore, we acknowledge that every thing really necessary in the theory and practice of medicine, may be learned from the excellent authors who have written originally in English; and that all the best works of other languages are to be had correctly translated into our own, still,

as it is not very becoming for a professional man to be totally ignorant of those languages in which all the ancient records of his art are preserved, and from which all the technical terms of which he is in the daily use are derived; it is hoped that classical learning will again assume its place, if not as absolutely necessary, at least as very useful, and highly ornamental, in the character of a physician.

The great error in our system of education is, that we are too much in a hurry, and that our young men are ushered into the world, and commence the practice of their professions, at a period so early, and after a preparation so slight, that very few have acquired the prudence or the knowledge requisite to govern their conduct in either; and hence arise the errors and failure of too many, and our general, and I am afraid I may say, too just, reputation for superficial attainments. Could we keep our youth at school until sixteen, at college until twenty, and in a counting house, or at the study of the professions, until twenty-four or twenty-five years of age, they would be more

generally successful in life; we should have fewer failures in trade, and more respectability and eminence in our professional men. Am I asked how it happens that in our own profession the general practice is so widely different? I can only answer, it is a state which we rather submit to than approve; that for the present we must palliate a disease we cannot immediately cure; that such is the condition of medicine throughout this widely extended, and thinly inhabited country, that very few of its practitioners can be compensated for an expensive education; and that the interest of the people, as well as the utility of the profession, are better promoted by sending abroad a considerable number of young men, decently, but competently initiated in the principles of their art, than only a few of higher qualifications. But this state of things is rapidly changing—perhaps has hitherto been unavoidable; and a just apology for it may be found in the infancy of our country, and its recent emancipation from a state of thraldom and dependence.

I rejoice, therefore, to see, and congratulate my

fellow-citizens on, the change. Many able advocates for the good old discipline have lately risen up among us, and a great and manifest improvement, in this respect, has already been made, and is rapidly progressing, in our schools and colleges.

A classical education is a fine preparation for acting in society with complacence, propriety, and dignity; for sound learning, and correct taste, are nearly connected with pure morals: independent of all principle, they undoubtedly give a delicacy and sensibility to the mind, very favourable to virtue; and whilst they are, in themselves, a prominent source of happiness to the individual, and place him above the necessity of seeking it from sources less pure, they, at the same time, become the means of diffusing happiness around him. "A wise and able magistrate, a learned professor of the law, a humane and benevolent physician, no less than an enlightened teacher of religion, contribute to the happiness of posterity, as well as that of the age in which they live: by their knowledge, they mitigate the evils of their cotemporaries; by their example, they mend the characters

of those with whom they associate; and, by their precepts, they sow the seeds of excellence which may bless and exalt their country to future generations."

Medicine is a comprehensive and an intricate science, founded on numberless facts which have been discovered through the successive periods of distant ages, and which have been collected and preserved in the writings of almost innumerable authors, of different nations and tongues. It has necessarily been coloured and disfigured by the credulity of some; rejected, lost, and again revived, by the cautious discrimination of others; elucidated by new discoveries, and confirmed by later experience. Among ignorant and barbarous nations, this science has ever been connected with religion, involved in mystery, and disfigured by superstition. As men advanced from barbarism, it assumed a more rational form, and, resting on the solid basis of experience, under the polished Greeks, directed by the genius of Hippocrates, acquired beauty, symmetry, and strength: until, as the refinements of a speculative philoso-

phy began to prevail, theoretic opinions were substituted for fact and experiment; the subtlety of the schools, and the wanderings of the imagination, for sound reasoning and chaste deduction. By these errors, the progress of medical science, though not absolutely arrested, was greatly checked; until, through the important discovery of the circulation of the blood, by Harvey, and the introduction of a strict philosophy, by Bacon, in which opinion was made to give place to observation, and a patient investigation of facts was substituted for the quibbles of sophistry, the science of medicine became again placed on its proper basis—nature, observation, and experience. From this moment, anatomy, chemistry, natural history, and natural philosophy, which, although they had long been in the train of medicine, had rather followed, than directed her researches, were impressed into her service, and made to take the lead in a medical education; nor until he has made considerable progress in these, can the student of medicine be properly qualified even to begin what is the great object of his pursuit, the study of diseases, and their cure.

In a profession so various, so intricate, and so extensive, it is easy to see that the scholar can make but little progress by private study. Lost and bewildered in the multiplicity of objects, and in the contrariety of conflicting opinions, he absolutely requires the hand of a master to lead him into the plainest and most direct path; to remove, as he goes along, the obstacles which may obstruct his progress; and to point out such as are most worthy his observation. Nor are there many individuals who are qualified to teach all the preliminary branches; each of them is sufficiently extensive to employ the time, and occupy the attention, of a man of no common attainments.

Besides, chemistry requires a laboratory; botany a garden; and anatomy a theatre and subjects; and, above all, the nature of diseases, and the practice of medicine, cannot be taught but in a public hospital. Much, therefore, as oral instruction, and the voice of a professor, are to be preferred to the silent investigations of the closet, still more is required: the co-operation of several teachers, and the facilities of a public institution;

and that, too, in a large city, where only, in this country at least, anatomy and the practice of medicine can be properly taught. In both these branches, the student must not only receive the instructions of his teacher—he must not only reflect on and digest what he hears and reads, but he must see, and handle, and examine, for himself. In anatomy, the subject, properly prepared, must be placed before him; without this, the most accurate description, even when aided by the finest plates and drawings, will be found wholly inadequate to convey correct ideas, or to make durable impressions on his mind. The parts must be unfolded by the knife; they must be distended by injections; and whatever is uninteresting, and obscures their intimate structure, must be removed; or the student will look with a vacant eye, upon what, to him at least, will appear an unformed mass: and if possible, after having been taught what he is to look for, and what is most worthy his observation, he should handle the knife and the syringe for himself—he should learn

how to prepare the subject for the instruction of others.

In chemistry, the science of nature, by which we are admitted into her confidence, are taught her secrets, and learn her processes, but slow progress can be made without a teacher, aided, too, by a large and expensive apparatus; for although by the introduction of a more correct language, and a more liberal philosophy, all the jargon and mystery in which the old chemists clothed their communications, and concealed their art, have been done away; still, the multiplicity of facts, the delicacy of processes, and the variety of apparatus, are such, that practice only can give that dexterity which is necessary to ensure success; and to acquire this dexterity unassisted, would require more time, and be accompanied by greater expense, than most students of medicine could well afford.

In botany and natural history, the number of objects to be examined, and with which it is necessary to become acquainted, is so great, that without a garden and a museum, without ar-

rangement and system, no correct or valuable knowledge can be acquired.

And, lastly, in the study of diseases, and in the practice of medicine, no histories, however accurate—no reasoning, however just—can convey the knowledge necessary for their treatment and cure. The student must see, and hear, and feel for himself. The hue of the complexion, the feel of the skin, the lustre or languor of the eye, the throbbing of the pulse and the palpitations of the heart, the quickness and ease of respiration, and the tone and tremor of the voice, the confidence of hope, and the despondence of fear, as they are expressed in the countenance, baffle all description; and yet all and each of these convey important and necessary information. Where can these be learned but at the bedsides of the sick? and where shall a young man, who cannot be admitted into the privacies of families, or the chambers of women, acquire this necessary information, but in a public hospital, which is not only intended as an asylum to relieve the complicated misery of poverty and sickness, but as a

school of medicine, to contribute to the public welfare; and, as such, deserves and receives the patronage of government, even more than as a mere charitable institution.

But beside these considerations, and the impossibility of teaching medicine in private, there are many advantages which attend public institutions in this, as well as most other sciences: one is, that from the division of the subject, a more enlarged, comprehensive, and systematic view of the whole will be taken; its connection with, and dependence on, other branches of learning, will be more clearly pointed out; and general laws and fundamental principles will be better taught.

The student learns what are the proper objects of his inquiry at each stage, and, as he goes along, is taught how to make a proper use of his previous acquirements and experience.

Besides, young men engaged in the same studies, mutually assist each other; emulation, which warms and engages the passions on the side of whatever is excellent, cannot be excited without rivals; without emulation in the scholar,

instruction will proceed but with a languid pace, and excellence is never attained. Nor is emulation confined to the scholar. The emoluments of the teacher depend on his fame, and both on his talents and industry. Stimulated, therefore, by his interest, and spurred on by his ambition, he will make every exertion to recommend his lectures, which he knows are to be brought to the ordeal of a nice and critical examination. Among his hearers, there will always be a number of the elder students, very able to judge of his merits, and very willing to discover his errors. Such a system of education cannot long be conducted in a slovenly or incompetent manner; negligence will sit very uneasily, ~~in it~~, and incompetence cannot long keep her seat in a professor's chair.

Nor is it by exciting their emulation only, that young men, assembled in a public school, are of use to each other; they mutually instruct one another, by their daily conversation, and in societies formed for the purpose of discussing professional opinions, on which they often exercise a

degree of attention and acuteness which serves as no inadequate test of their truth and usefulness; and this farther serves to explain them to their understandings, and fix them in their memories, with more clearness and precision than hearing them many times repeated from their professors.

Indolence is the greatest enemy to learning; but indolence is a vice bred and nourished in solitude, and can hardly exist at a public school, but in minds of so heavy a mould as to be incapable of culture. But dissipation is the error into which a young man of lively disposition and quick parts, especially on first coming from the retirement of the country into a large and luxuriant city, is most apt to fall; and unless he possess some strength of mind, the variety of new scenes, the novelty of surrounding objects, and the allurements of pleasure, too frequently seize upon his imagination, occupy his thoughts, waste his time and his resources, blast his own prospects, and disappoint the hopes and expectations of his friends. Against this I have nothing

to urge but the common, though strong and irresistible, argument of duty and necessity; nor any remedy to propose, but that of wholesome employment. It is at the commencement of your career that you will be in the greatest danger; if you postpone your indulgence for a short time, even for a few weeks, until you are fairly engaged in your studies, full occupation will at least lessen the temptation; and when once you see how absolutely incompatible dissipation and pleasure are with duty and improvement, you will probably find yourselves able to resist their attractions, or, I should rather hope, they will have no attractions for you.

On the other hand, to continue in retirement, and there to labour without plan or design, may indeed accumulate a confused mass of materials; but beauty, order, and proportion, are the result of skill: he that would build a palace, must employ an architect. So the student of medicine, who trusts to his own unassisted researches, or who is directed by an inadequate guide, may load his memory and confound his judgment, by a

great number of facts, and a medley of opinions, which will only lead him into error, and end at last in darkness and confusion. But he who is properly initiated into the rudiments of his art, pursues his improvement in the light of day; every step he takes, brings him nearer to his purposed end; every fact and opinion he learns, takes its proper place; and knowledge—clear, precise, and accurate knowledge, is the happy result.

In no profession are sound learning, clear and definite opinions, and correct conduct, of more consequence, than in that of medicine; in the exercise of which, our dearest interests, our health and lives, and the health and lives of our parents, wives, children, and friends, are deeply and essentially concerned. For let it be remembered, that there is no middle course in medicine: it is a mistake, to suppose the conduct of a physician is ever of that neutral and inconsequential nature, that although it do no good, it will do but little harm. If, through ignorance, a physician does not do good, he will

probably do much injury; for our opportunities of acting are so fleeting, that they must be seized at the moment; and to lose time is, frequently, to do all we can to render the case under our care desperate or fatal. Nor, on the contrary, is there any profession, in which that cautious diffidence, which is the result of deep knowledge, is of greater consequence, than in that of the physician. In our profession, to know when to act with vigour, when to palliate symptoms, or to look on with patience, and from what circumstances to draw our indications, is the result only of a thorough knowledge of our subject; nor in any profession is that meddling presumption, which is ever the companion, and most frequently the veil, of ignorance, more dangerous.

Nor are the happy consequences of a good education, in medicine, confined to the chambers of the sick; a physician must always, in some measure, become the companion, and frequently the intimate friend, of his patient; he must often share his confidence, and, on some occasions, become the depositary of his secrets. His prin-

ciples, therefore, his knowledge, and his example, become extensively useful or prejudicial. Is he learned, and wise, and good?—his learning will instruct, his skill and his humanity will bless, and his advice and example may amend many among those with whom he daily converses. Is he ignorant, and loose, and debauched? —what mischief may he not do to the younger members of those families who place their confidence in him, and who generally look up to him as a character of superior talent, learning, and worth. Again; the medical character is not only very influential—it is also the most numerous, among the learned professions: the example, therefore, of a physician's knowledge and virtues, or the contamination of his ignorance and his vices, will assume a wider and more extended range.

Is it possible, then, that greater inducements can be offered to a young man, to stimulate his most strenuous exertions, and to call forth all the force of his understanding, and every generous feeling of his heart, than are to be found in the

nature, the extent, and the influence of our profession. Occupied on the most important subjects, the ease, the comfort, the happiness, and the lives, of our fellow creatures, it imperiously calls for knowledge and ability. Extensive, beyond the limits of any other science, in the variety of its objects, the continually changing nature of its subjects, and the endless progressive march of its improvements, it is impossible either to acquire what is now known, or to keep pace with its daily accessions of knowledge, but by a zeal and industry as steady and persevering as time itself. Extended over the face of the whole earth, and at the same time penetrating into the recesses of every private family, unless our knowledge be accompanied by prudence, virtue, and religion, we may do more harm by our example, than we can do good by our skill.

Let me then hope, that every young man who now hears me, will lay these important truths seriously to heart; that he will study his profession, not only from motives of ambition and interest, but with a view to the better fulfilment of

his moral and religious duties. That he will conscientiously consider the reponsibility of his station, and the influence of his example, and that, whilst he faithfully and respectably fulfils his duty to his patients, by his talents, learning, and industry, he will support the dignity of his own character, by the correctness of his conduct, and recommend his example, by the purity of his manners:—And may peace, reputation, and fortune, be his well-earned reward.